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**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

# Office Action Summary

## Application No.

10/803,111

## Applicant(s)

GOLDICK ET AL.

## Examiner

KUEN S. LU

## Art Unit

2169

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☒ Responsive to communication(s) filed on 14 August 2008.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 1-39 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-39 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

## Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

## Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO/SF/ICE)  
Paper No(s)/Mail Date 8/14/2008
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: \_\_\_\_\_

#### **DETAILED ACTION**

0. This is to respond Applicant's Amendment filed August 13, 2008. In which Applicant's arguments concerning 35 U.S.C. § 101 rejections made against claims 10-19 and 30-39 are found persuasive and as such, Examiner hereby withdraws the rejections. As to Applicant's arguments with respect to 35 U.S.C. § 101 rejections, please see discussion in Para. ***Response to Arguments***, after ***Claim Rejections - 35 USC § 103*** shown next.

1. Claims 1-39 are pending.

#### ***Information Disclosure Statement***

2. The information disclosure statement (IDS) submitted on August 14, 2008 was filed before Final Office Action. The submission is in compliance with the provisions of 37 CFR 1.97. Accordingly, the information disclosure statement is being considered by the examiner.

#### ***Claim Rejections - 35 USC § 103***

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-39 are rejected under 35 U.S.C. 103(a) as being unpatentable over US Patent Number 6,920,579 issued to Samuel M. Cramer et al (Cramer") and US Patent Number

5,860,116 issued to Peter Washington ("Washington") and US Patent Publication 2003/0149736 issued to Brian Berkowitz et al ("Berkowitz").

**As per independent claim 1** Cramer teaches:

A method of moving a file service within a plurality of storage filers coupled to a communication network and a storage network (Abstract), the method comprising: generating file service data for the file service in a first storage filer (column 5, lines 37-38, file service data equates to state information); associating the file service with an identification (column 6, lines 39-45); allocating the file service data to at least one memory ... in the first storage filer based on the identification (column 6, lines 41-45, state information stored in mass storage device non-volatile random access memory); determining an indication to transfer the file service from the first storage filer (column 2, lines 59-64).

Cramer does not explicitly teach transferring the at least one memory page using the identification from the first storage ... to a second storage.... Washington does teach this limitation (column 2, lines 29-36) to efficiently control location of memory pages. It would have been obvious to one of ordinary skill in the art at the time of the invention to modify Cramer with transferring the at least one memory page using the identification from the first storage ... to a second storage to efficiently control location of memory pages as described by Washington (column 1, lines 34-36).

Cramer and Washington do not explicitly teach determining an optimal time to suspend file operations of the file service. Berkowitz teaches this limitation (at paragraph 64, as instruct writers to stop writing and wait a predetermined amount of time to allow existing access requests to complete before proceeding) to effectively communicate with writers such that the writers do not attempt to access or modify a volume of information while a copy is being made and to prevent access updates or inaccurate point-in-time copy information. It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Cramer and Washington with determining an optimal time to suspend file operations of the file service to effectively communicate with writers such that the writers do not attempt to access or modify a volume of information while a copy is being made and to prevent access updates or inaccurate point-in-time copy information as described by Berkowitz at (paragraph 64).

As per claim 2, same as claim argument above and Cramer teaches:  
further comprising identifying the second storage filer (column 6, lines 41-45, Filer B).

As per claim 3, same as claim argument above and Cramer teaches:  
wherein identifying the second storage filer comprises determining whether the second storage filer has adequate memory for the at least one memory page (column 6, lines 41-45, storing a mirror copy in main storage of filer b).

As per claim 4, same as claim argument above and Cramer teaches:  
further comprising transmitting a message to clients for the file service connected to the communication network to communicate with the second storage filer (column 3, lines 13-15).

As per claim 5, same as claim argument above and Cramer teaches:  
further comprising suspending file operations of the file service (column 3, lines 12-13, first filer ceases accepting new requests).

As per claim 6, same as claim argument above and Washington teaches:  
further comprising reducing unused space in the at least one memory page (column 2, lines 30-36).

As per claim 7, same as claim argument above and Washington teaches:  
further comprising fixing pointers related to the at least one memory page (column 4, lines 53-55, updated to point to new page).

As per claim 8, same as claim argument above and Cramer teaches:  
wherein determining the indication is based on a policy to transfer the file service from the first storage filer (column 2, lines 59-64, policy to transfer associated with running

the routine maintenance and upgrades).

As per claim 9, same as claim argument above and Cramer teaches:  
wherein determining the indication further comprises receiving an instruction to transfer the file service from the first storage filer (column 3, lines 29-31, operator initiates take over by a command).

As per independent claim 10 Cramer teaches:

A system for storage filing (Abstract), the system comprising:  
a first storage filer coupled to a communication network and a storage network and configured to generate file service data for a file service(column 5, lines 37-38, file service data equates to state information), associate the file service with an identification(column 6, lines 39-45), allocate the file service data to at least one memory ..in the first storage filer based on the identification(column 6, lines 41-45, state information stored in mass storage device non-volatile random access memory), determine an indication to transfer the file service from the first storage filer(column 2, lines 59-64).

Cramer does not explicitly teach transfer the at least one memory page using the identification from the first storage ... and a second storage... configured to receive the at least one memory page. Washington does teach this limitation (column 2, lines 29-36) to efficiently control location of memory pages. It would have been obvious to one of ordinary skill in the art at the time of the invention to modify Cramer with transfer the at

least one memory page using the identification from the first storage... and a second storage ... configured to receive the at least one memory page to efficiently control location of memory pages as described by Washington (column 1, lines 34-36).

Cramer and Washington do not explicitly teach determine an optimal time to suspend file operations of the file service. Berkowitz teaches this limitation (at paragraph 64, as instruct writers to stop writing and wait a predetermined amount of time to allow existing access requests to complete before proceeding) to effectively communicate with writers such that the writers do not attempt to access or modify a volume of information while a copy is being made and to prevent access updates or inaccurate point-in-time copy information. It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Cramer and Washington with determining an optimal time to suspend file operations of the file service to effectively communicate with writers such that the writers do not attempt to access or modify a volume of information while a copy is being made and to prevent access updates or inaccurate point-in-time copy information as described by Berkowitz at (paragraph 64).

As per claim 11, same as claim argument above and Cramer teaches:  
wherein the first storage filer is configured to identify the second storage filer (column 6, lines 41-45, Filer B).

As per claim 12, same as claim argument above and Cramer teaches:



wherein the first storage filer is configured to identify the second storage filer by determining whether the second storage filer has adequate memory for the at least one memory page(column 6, lines 41-45, storing a mirror copy in main storage of filer b).

As per claim 13, same as claim argument above and Cramer teaches:

wherein the first storage filer is configured to transmit a message to clients for the file service connected to the communication network to communicate with the second storage filer (column 3, lines 13-15).

As per claim 14, same as claim argument above and Cramer teaches:

wherein the first storage filer is configured to suspend file operations of the file service ... (column 3, lines 12-13, first filer ceases accepting new requests).

As per claim 15, same as claim argument above and Washington teaches:

wherein the first storage filer is configured to reduce unused space in the at least one memory page (column 2, lines 30-36).

As per claim 16, same as claim argument above and Washington teaches:

wherein the second storage filer is configured to fix pointers related to the at least one memory page (column 4, lines 53-55, updated to point to new page).

As per claim 17, same as claim argument above and Cramer teaches:

wherein the first storage filer is configured to determine the indication is based on a policy to transfer the file service from the first storage filer (column 2, lines 59-64, policy to transfer associated with running the routine maintenance and upgrades).

As per claim 18, same as claim argument above and Cramer teaches:

wherein the first storage filer is configured to receive an instruction to transfer the file service from the first storage filer (column 3, lines 29-31, operator initiates take over by a command).

As per independent claim 19 Cramer teaches:

A system for storage filing coupled to a communication network and a storage network (Abstract), the system comprising:

means for generating file service data for a file service in a first storage filer (column 5, lines 37-38, file service data equates to state information);

means for associating the file service with an identification (column 6, lines 39-45);

means for allocating the file service data to at least one memory page in the first storage filer based on the identification (column 6, lines 41-45, state information stored in mass storage device non-volatile random access memory);

means for determining an indication to transfer the file service from the first storage filer (column 2, lines 59-64).

Cramer does not explicitly teach means for transferring the at least one memory page using the identification from the first storage ... to a second storage .... Washington does teach this limitation (column 2, lines 29-36) to efficiently control location of memory pages. It would have been obvious to one of ordinary skill in the art at the time of the invention to modify Cramer with transferring the at least one memory page using the identification from the first storage ... to a second storage to efficiently control location of memory pages as described by (column 1, lines 34-36).

Cramer and Washington do not explicitly teach means for determining an optimal time to suspend file operations of the file service. Berkowitz teaches this limitation (at paragraph 64, as instruct writers to stop writing and wait a predetermined amount of time to allow existing access requests to complete before proceeding) to effectively communicate with writers such that the writers do not attempt to access or modify a volume of information while a copy is being made and to prevent access updates or inaccurate point-in-time copy information. It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Cramer and Washington with determining an optimal time to suspend file operations of the file service to effectively communicate with writers such that the writers do not attempt to access or modify a volume of information while a copy is being made and to prevent access updates or inaccurate point-in-time copy information as described by Berkowitz at (paragraph 64).

As per claim 20 Cramer teaches:

A method of moving a file service in a first storage filer located between a communication network and a storage network(Abstract), the method comprising: determining an indication to transfer a file service from the first storage filer(column 2, lines 59-64);

identifying an available storage filer to receive the file service (column 2, lines 6, second filer may takeover from first filer);  
an identification for the file service (column 6, lines 39-45).

Cramer does not explicitly and transmitting at least one memory page with file service data of the file service from the first storage ... to the available storage .... Washington does teach this limitation (column 2, lines 29-36) to efficiently control location of memory pages. It would have been obvious to one of ordinary skill in the art at the time of the invention to modify Cramer with and transmitting at least one memory page with file service data of the file service from the first storage ... to the available storage ... to efficiently control location of memory pages as described by (column 1, lines 34-36).

Cramer and Washington do not explicitly teach determining an optimal time to suspend file operations of the file service. Berkowitz teaches this limitation (at paragraph 64, as instruct writers to stop writing and wait a predetermined amount of time to allow existing access requests to complete before proceeding) to effectively communicate with writers such that the writers do not attempt to access or modify a volume of information while a copy is being made and to prevent access updates or inaccurate point-in-time copy information. It would have been obvious to one of ordinary

skill in the art at the time the invention was made to modify Cramer and Washington with determining an optimal time to suspend file operations of the file service to effectively communicate with writers such that the writers do not attempt to access or modify a volume of information while a copy is being made and to prevent access updates or inaccurate point-in-time copy information as described by Berkowitz at (paragraph 64).

As per claim 21, same as claim argument above and Cramer teaches:  
further comprising: generating the file service data for a file service in a first storage filer (column 5, lines 37-38, file service data equates to state information);  
associating the file service with the identification (column 6, lines 39-45)...

As per claim 22, same as claim argument above and Cramer teaches:  
further comprising allocating the file service data to the at least one memory page in the first storage filer based on the identification(column 6, lines 41-45, state information stored in mass storage device non-volatile random access memory).

As per claim 23, same as claim argument above and Cramer teaches:  
wherein identifying the available storage filer comprises determining whether the available storage filer has adequate memory for the at least one memory page (column 6, lines 41-45, storing a mirror copy in main storage of filer b).

As per claim 24, same as claim argument above and Cramer teaches:

further comprising transmitting a message to clients for the file service connected to the communication network to communicate using an address of the available storage filer (column 3, lines 13-15).

As per claim 25, same as claim argument above and Cramer teaches:

further comprising suspending file operations of the file service (column 3, lines 12-13, first filer ceases accepting new requests).

As per claim 26, same as claim argument above and Washington teaches:

further comprising reducing unused space in the at least one memory page (column 2, lines 30-36).

As per claim 27, same as claim argument above and Washington teaches:

further comprising fixing pointers related to the at least one memory page (column 4, lines 53-55, updated to point to new page).

As per claim 28, same as claim argument above and Cramer teaches:

wherein the file service comprises a Common Internet File System session/service (column 4, lines 54-56, Common Internet File System).

As per claim 29, same as claim argument above and Cramer teaches:

wherein the file service comprises a Network File System session/service (column 4, lines 53-54, Network File System).

As per independent claim 30 Cramer teaches:

A first storage filer located between a communication network and a storage network (Abstract), the first storage filer comprising:

a processor configured to determine an indication to transfer a file service from the first storage filer(column 2, lines 59-64) and identify an available storage filer to receive the file service(column 2, lines 6, second filer may takeover from first filer);

an identification for the file service (column 6, lines 39-45).

Cramer does not explicitly an interface configured to transmit at least one memory page with file service data of the file service from the first storage ... to the available storage ... and a memory configured to store the at least one memory page.

Washington does teach this limitation (column 2, lines 29-36) to efficiently control location of memory pages. It would have been obvious to one of ordinary skill in the art at the time of the invention to modify Cramer with to transmit at least one memory page with file service data of the file service from the first storage ... to the available storage ... and a memory configured to store the at least one memory page to efficiently control location of memory pages as described by (column 1, lines 34-36).

Cramer and Washington do not explicitly teach determine an optimal time to suspend file operations of the file service. Berkowitz teaches this limitation (at paragraph 64, as instruct writers to stop writing and wait a predetermined amount of

time to allow existing access requests to complete before proceeding) to effectively communicate with writers such that the writers do not attempt to access or modify a volume of information while a copy is being made and to prevent access updates or inaccurate point-in-time copy information. It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Cramer and Washington with determining an optimal time to suspend file operations of the file service to effectively communicate with writers such that the writers do not attempt to access or modify a volume of information while a copy is being made and to prevent access updates or inaccurate point-in-time copy information as described by Berkowitz at (paragraph 64).

As per claim 31, same as claim argument above and Cramer teaches:

wherein the processor is configured to generate file service data for a file service in a first storage filer and associate the file service with the identification (column 5, lines 37-38, file service data equates to state information and column 6, lines 39-45).

As per claim 32, same as claim argument above and Cramer teaches:

wherein the processor is configured to allocate the file service data to the at least one memory page in the first storage filer based on the identification (column 6, lines 41-45, state information stored in mass storage device non-volatile random access memory).



As per claim 33, same as claim argument above and Cramer teaches:  
wherein the processor is configured to determine whether the available storage filer has adequate memory for the at least one memory page (column 6, lines 41-45, storing a mirror copy in main storage of filer b).

As per claim 34, same as claim argument above and Cramer teaches:  
wherein the processor is configured to transmit a message to clients for the file service connected to the communication network to communicate using an address of the available storage filer (column 3, lines 13-15).

As per claim 35, same as claim argument above and Cramer teaches:  
wherein the processor is configured to suspend file operations of the file service ...  
(column 3, lines 12-13, first filer ceases accepting new requests).

As per claim 36, same as claim argument above and Washington teaches:  
wherein the processor is configured to reduce unused space in the at least one memory page (column 2, lines 30-36).

As per claim 37, same as claim argument above and Cramer teaches:  
wherein the file service comprises a Common Internet File System Session/service  
(column 4, lines 54-56, Common Internet File System).

As per claim 38, same as claim argument above and Cramer teaches:

wherein the file service comprises a Network File System session/service (column 4, lines 53-54, Network File System).

As per independent claim 39 Cramer teaches:

A first storage filer located between a communication network and a storage network (Abstract), the first storage filer comprising:

means to determine an indication to transfer a file service from the first storage filer (column 2, lines 59-64);

means to identify an available storage filer to receive the file service (column 2, lines 6, second filer may takeover from first filer);

an identification for the file service (column 6, lines 39-45).

Cramer does not explicitly teach means to transmit at least one memory page with file service data of the file service from the first storage ... to the available storage.

Washington does teach this limitation (column 2, lines 29-36) to efficiently control location of memory pages. It would have been obvious to one of ordinary skill in the art at the time of the invention to modify Cramer with means to transmit at least one memory page with file service data of the file service from the first storage ... to the available storage to efficiently control location of memory pages as described by (column 1, lines 34-36).

Cramer and Washington do not explicitly teach determine an optimal time to

suspend file operations of the file service. Berkowitz teaches this limitation (at paragraph 64, as instruct writers to stop writing and wait a predetermined amount of time to allow existing access requests to complete before proceeding) to effectively communicate with writers such that the writers do not attempt to access or modify a volume of information while a copy is being made and to prevent access updates or inaccurate point-in-time copy information. It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Cramer and Washington with determining an optimal time to suspend file operations of the file service to effectively communicate with writers such that the writers do not attempt to access or modify a volume of information while a copy is being made and to prevent access updates or inaccurate point-in-time copy information as described by Berkowitz at (paragraph 64).

#### ***4. Response to Arguments***

##### **REMARKS**

In the Office Action of May 13, 2008, the Examiner issued new grounds of rejection for claims 1-39. Based on the following remarks, Applicants respectfully request reconsideration of the Application.

The Examiner rejected claims 1-39 under 35 U.S.C. §103(a) as being unpatentable over United States Patent No. 6,920,579 (Cramer) in view of United States Patent No. 5,860,116 (Washington) and United States patent Publication No. 2003/0149736 (Berkowitz). (Office Action, 5) Because the combination of Cramer, Washington, and

Berkowitz fails to disclose or suggest each limitation of claims 1-39, Applicants respectfully traverse this rejection.

Claims 1-9

Among other limitations, claim 1 recites, in part, "determining an optimal time to suspend file operations of the file service" and "transferring the at least one memory page using the identification from the first storage filer to a second storage filer during the optimal time." (emphasis added) The cited references, considered individually or in combination, fail to disclose the embodiment of claim 1. Cramer discloses a system takeover of one server by another server. When taking over a server, the first server completes existing file service requests and ceases accepting new file requests. (col. 3, lines 8-12) A graceful shutdown of the server involves starting a timer, during which in-process requests are completed and no new file service requests are processed. (Col. 7, lines 16-22)

**As Examiner indicated, Cramer does not disclose "determining an optimal time to suspend file operations of the file service" and "transferring the at least one memory page using the identification from the first storage filer to a second storage filer during the optimal time" as recited in claim 10. (Office Action, 5 ¶ 2 to 6 ¶ [ 2])**

**Washington also does not disclose the element of "determining an optimal time" to suspend file operations and to "transfer the at least one memory page [...] during the optimal time" as recited in claim 10. Washington discloses a system allowing memory page access both remotely and locally. When remote access to**

**a memory location is greater than local access for a read only memory page, a memory page transfer is performed. (Col. 4, lines 1-6 and col. 5, lines 10-14) The memory page transfer disclosed in Washington is not performed based on a determined time, but rather a determination that remote access for a memory location is greater than local access.**

**As Examiner indicated, Washington does not disclose "determining an optimal time to suspend file operations of the file service"** (Office Action, 5, ¶ 2 to 6, Since Washington does not determine an optimal time, Washington cannot disclose "transferring the at least one memory page using the identification from the first storage filer to a second storage filer during the optimal time" as recited in claim 10. Examiner cites Washington, col. 2, lines 29-36 to support a rejection of this limitation. (Office Action, 6, ~ 1) However, the cited portion of Washington indicates that an apparatus may include a means for moving a memory page "when the number of accesses to that memory location from the second processor exceeds those from the first processor." A means for moving a memory page based on comparing a number of accesses does not disclose transferring a memory page "during an optimal time" as recited in claim 10. The cited portion of Washington makes no explicit or implicit disclosure that transferring a memory page is performed during an optimal time.

Berkowitz does not cure the deficiencies of Cramer and Washington with respect to claim 1. Berkowitz discloses transporting volumes of information from one host computer system to another using point in time copies of Logical Unit Numbers (LUNs)

relating to a virtual device. (9 [0011]) In response to receiving a request for a point-in-time copy of a volume for transport, the requested point-in-time volume information is resolved into LUN information to be copied and the system simply instructs writers to stop writing. (¶¶ [0063-0064])

Berkowitz does not disclose the element of "determining an optimal time" to suspend file operations and to "transfer the at least one memory page [...] during the optimal time" as recited in claim 1. Rather, Berkowitz issues a command to stop writers from writing in response to receiving a request for a volume copy. There is no disclosure by Berkowitz that the command to stop the writers is made at an "optimal time," nor any other determination of an "optimal time" to suspend file operations as recited in claim 1. Rather, Berkowitz stops writers in response to receiving a request, regardless of when that request is received.

The combination of Cramer, Washington, and Berkowitz also do not provide every limitation of claim 1. In particular, the combination of the references fails to disclose **"determining an optimal time" to suspend file operations and to "transfer the at least one memory page [...] during the optimal time"** as in claim 1.

Because the cited references do not disclose the elements of claim 1 either individually or in combination, claim 1 is not obvious over the cited references and should be allowed. Claims 2-9 depend from claim 1 and include the elements of claim 1 in addition to the patentably distinguishing limitations they recite.

Therefore, claims 2-9 are not obvious over the cited references for at least the same reasons as claim 1, and claims 2-9 should be allowed.

Independent claims 10, 19, 20, 30, and 39 contain a similar limitation of determining an optimal time to suspend file operations of the file service, and transferring at least one memory page during the optimal time. As such, these claims are not obvious over the cited references for at least the same reasons as those of claim 1. Claims 11-18, 21-29, and 31-38 depend from independent claims 10, 20, and 30, respectively. For at least the same reasons as those of their independent base claims, claims 11-18, 21-29, and 31-38 are not obvious in view of the cited references.

#### Conclusion

Based on the foregoing remarks, Applicants believe the rejections to the claims have been overcome, and that the present Application is in condition for allowance. If the Examiner has any questions regarding the case, the Examiner is invited to contact Applicants' undersigned representative.

Respectfully submitted,

**Concerning the argument that combination of Cramer, Washington, and Berkowitz fails to teach** determine an optimal time to suspend file operations of the file server or transfer memory pages from a first storage filer to a second storage filer during the optimal time, **Examiner respectfully submits that though the references may not teach the limitation *explicitly*, however, at col. 4, lines 48-55 Washington does teach determining a pre-defined time whether a requested page is read-only and then copying the page to the requesting memory in which the pre-defined time varies depending upon system configuration and**

*desired performance. That is, Washington teaches determining an optimal time to perform a page transfer operation when the point time is pre-defined and varied, and in other words, Washington also teaches the time other than the pre-defined and under desired condition is the time point the file operation is determined not to perform. By this interpretation, Examiner respectfully submits that Washington teaches* determine an optimal time to suspend file operations of the file server or transfer memory pages from a first storage filer to a second storage filer during the optimal time.

### **Conclusions**

5. Applicant's amendment necessitated the new grounds of rejection presented in this Office Action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP

706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.



***Contact Information***

6. Any inquiry concerning this communication or earlier communications from the examiner should be directed to KUEN S. LU whose telephone number is (571)272-4114. The examiner can normally be reached on 8 AM to 5 PM, Monday through Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Pierre Vital can be reached on 517-272-4215. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Art Unit 2169

October 31, 2008

KUEN S. LU, Primary Patent Examiner

/Kuen S Lu/